Title:	**European water quality monitoring**
Lecture hours:	15
Study period: (summer/winter)	Winter, summer
Number of credits:	5
Assessment methods:	Graded credit
Language of instruction:	English
Prerequisites:	Course for the Earth and Environmental Sciences, especially for geography students
Course content:	Lecture part: 1. European law (Water Framework Directive, Nitrogen Directive, etc.); 2. Monitoring Program (monitoring system, water sampling, etc.); 3. Water quality parameters (biological, physicochemical, and chemical- priority substances indicators); 4. Evaluate water status (ecological and chemical water status). Field part: 1. Field measurements of water quality (river or lake / basic physicochemical and biological indicators measurements).
Learning outcomes:	K01 – student knows the goals and tasks of environmental monitoring; K02 – student knows the principles of environmental monitoring; S01 – the student can carry out monitoring field research; S02 – student can assess the state of the environment
References:	The literature on the subject will be presented during the course. • Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy. • The State Environmental Monitoring Programme for years 2020-2025, 2020, Chief Inspector of Environmental Protection, Warsaw. • Habel M., Szatten D., Babiński Z., Nadolny G., 2021, Sediment Management in River Basins: An Essential Element of the River Basin Management Plans. In: Zeleňáková M., Kubiak-Wójcicka K., Negm A.M. (eds) Quality of Water Resources in Poland. Springer Water. Springer, Cham. https://doi.org/10.1007/978-3-030-64892-3_12 • Czerebiej Z., Szatten D., 2015, Characteristic of environmental objectives of river's surface waters monitoring in water cycles 2010-2021 for kujavian and pomeranian voivodeship, Geography and Tourism, Vol.3, No.2, p.7-17, DOI: 10.5281/zenodo.46675 • Szatten D., Habel M., 2020, Effects of Land Cover Changes on Sediment and Nutrient Balance in the Catchment with

	Cascade-Dammed Waters, Remote Sensing, 12(20), 3414; https://doi.org/10.3390/rs12203414. • Fieldwork cards (provided by the teacher) • Internet
Name of lecturer:	dr Dawid Szatten, Faculty of Geographical Sciences
Email address:	szatten@ukw.edu.pl